SHEL LAB®

SCO Series - Air Jacketed Units

SHEL LAB CO_2 Incubators

Ideal for Clinical, Analytical, and General Laboratory Applications

SCO air jacketed CO_2 incubators provides an optimized culturing environment with passive humidification, highly stable CO_2 levels, and tight temperature uniformity to safeguard your cell sample populations.

Features and Benefits

Copper gas plumbing, stainless steel interior, and a glass viewing door gives the SCO5A and SCO10A enhanced protection against microbiological contamination.

SCO5A

- Infrared (IR) sensor for quick recovery of CO_2 levels after door openings.
- USB data logging capabilities.
- 1 Advanced PID temperature control system for sensitive response.
- 2 Independent over temperature setpoint and operational control override for additional safety.
- 3 Side-mounted access port, 1.3" inner diameter (33 mm) for independent cables, sensors, and instrumentation.
- 4 Stainless steel interior construction for long life operation, easy cleaning.
- 5 Heated Copper CO_2 inlet to promote temperature uniformity and reduce the risks of contamination and condensation.
- 6 Autoclavable shelving system.
- 7 Unique air jacketed design provides excellent temperature uniformity of +/-0.25°C at 37°C.
- 8 Patented copper cage HEPA filter for reduced risk of contamination.
- 9 Heated door to ensure superior temperature uniformity.
- 10 Sealed inner glass door allows for viewing without disturbing the critical growth atmosphere and allows for improved gas utilization and condensate reduction.
- Safety certified CAN/CSA, UL, EN, IEC 61010, and compliant with CE.

Made in the USA

SHEL LAB®

Contamination Control

Extensive use of copper in the CO_2 sample port, humidity reservoir, heated CO_2 feed line, and housing of the patented HEPA filtration system adds reassurance that foreign microbes will not affect test results. Cleanup is a breeze with the all stainless steel chamber, coved corners, and autoclavable door gasket. Optional copper shelves are available for even more contamination control.

Applications:

- Cell Culture
- Microbiology
- Plant Cell Culture
- Stem Cells
- Tissue Culture
- Food Analysis

SCO10A

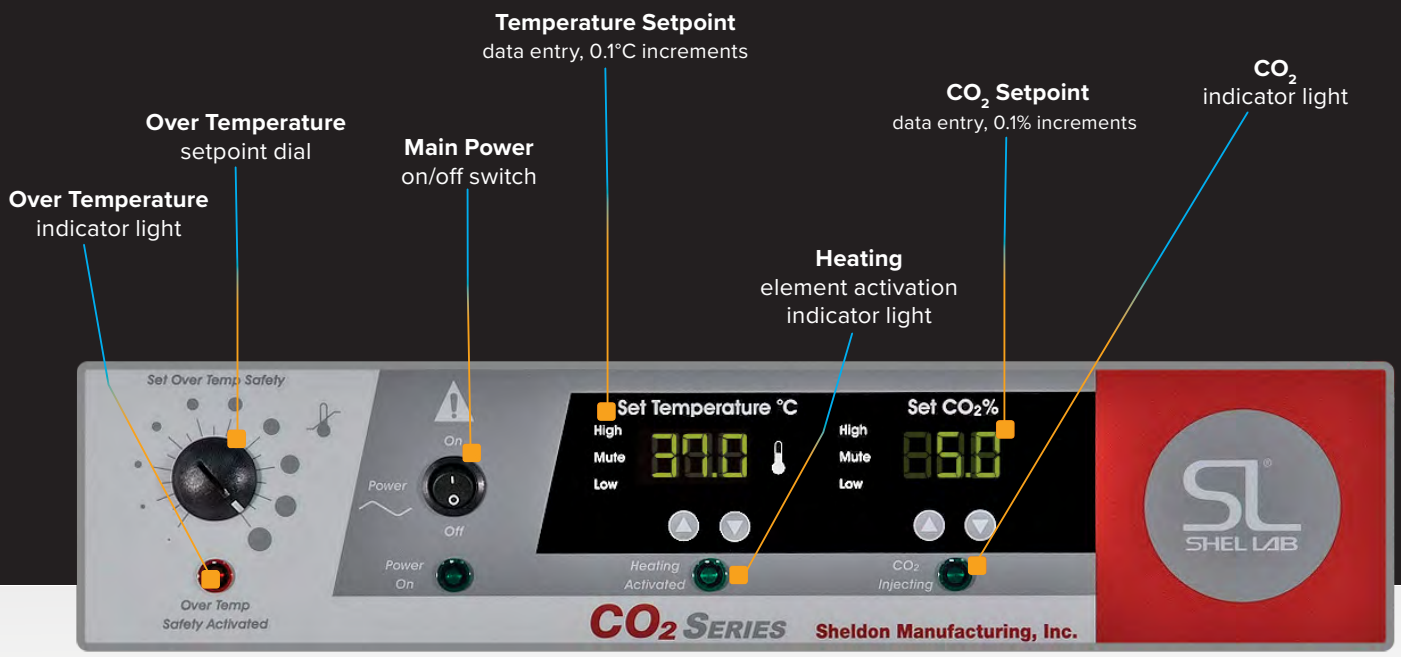
SCO5A

Control, Feedback, and Monitoring

The advanced PID (proportional, integral, derivative) controller commands proportional power to the heating elements and CO_2 injection frequency to provide the most accurate and responsive control. Each controller is matched to the incubator chamber volume to assure faster response to setpoint without overshoot and quicker recovery following door openings. Indicator lights are included for visual status feedback on critical functions.

Integrated Control Panel

All controls are centrally located on the main panel including manual power, independent over temperature control, digital temperature/CO_2 adjustments, and indicator lights for all functions.



SCO Air Jacketed CO_2 Incubators Specification Chart

	SCO5A	SCO10A
Interior Volume, Nominal	5 cu.ft. (142 liters)	10 cu.ft. (285 liters)
Interior Dimensions W x D x H	20.5" x 19.7" x 21.5" 521 x 500 x 546 mm	20.5" x 19.7" x 21.5" 521 x 500 x 546 mm
Exterior Dimensions W x D x H	27.3" x 28.5" x 37.8" 693 x 724 x 960 mm	27.3" x 28.5" x 75.5" 693 x 724 x 1917 mm
Interior Construction	300 series stainless steel	300 series stainless steel
Exterior Construction	20 gauge steel, powder coated	20 gauge steel, powder coated
Shelves (See Accessories)*	3 standard, 8 total	6 standard, 16 total
Maximum Weight Per Shelf*	35 lb / 15.8kg	35 lb / 15.8kg per unit
Permitted Total Load	105 lb / 47.6kg	105 lb / 47.6kg per unit

*Extra standard and reinforced shelves available. See Accessories.

SCO5A

SCO10A

SCO Air Jacketed CO_2 Incubators Selection Chart

	SCO5A		SCO10A	
Order Model Number, Voltage Specific	**SCO5A**	**SCO5A-2**	**SCO10A**	**SCO10A-2**
Electrical, 50/60Hz, AC, 1Ø				
Voltage	110V-120V	220V-240V	110V-120V	220V-240V
Full Load Amps	6.0	3.0	12.0*	6.0*
Nominal Power (watts @37°C)	105	95	210	190
Recommended Breaker, Amps	15	16	15	16
Power Cord Supplied	NEMA5-15P	EU6-10P	NEMA5-15P	EU6-10P
CO_2 Range	1-20%	1-20%	1-20%	1-20%
Recovery CO_2 at 5%**	< 5 min.	< 5 min.	< 5 min.	< 5 min.
Sensor Type	Infrared	Infrared	Infrared	Infrared
Temperature Uniformity				
At 37°C	± 0.25°C	± 0.25°C	± 0.25°C	± 0.25°C
Temperature Recovery 37°C**				
Recovery to 37°C After 30 sec. Door Opening	2.0 min.	2.0 min.	2.0 min.	2.0 min.
Temperature Range				
Ambient to 5° to 60°C	✓	✓	✓	✓

*SCO10A: 6 amps per unit, 12 amps total. SCO10A-2: 3.0 amps per unit, 6 amps total.

**To 98% of set value.

DIN 12880 Compliance

SCO Air Jacketed CO_2 Incubators are designed to meet or exceed the performance criteria established through DIN 12880:2007:05 and ASTM E1292-94 (Reapproved 2006.).

Note: DIN 12880 is an international standard for measuring the performance of electrical laboratory ovens and incubators based on Deutsches Institut Fur Normung E.V. (German National Standard), 05/01/2007.

Patented Copper Coated HEPA Filter

This specialized filter features a "bacteriostatic" copper cage to trap particulate matter and reduce the potential for chamber contamination. This filter removes 99.97% of all airborne microbes

Site Preparation and Installation Guides

	SCO5A	SCO10A
Wall Clearance, Sides	4.0" (100 mm)	4.0" (100 mm)
Wall Clearance, Roof	2.0" (50 mm)	2.0" (50 mm)
Access Port (Inner Diameter)	1.45" (36.8 mm)	1.45" (36.8 mm)
Unit Weight Empty	136 lb (61.7kg)	272 lb (123.4kg)
Shipping Weight	179.5 lb (81.2kg)	360 lb (163.3kg)

Options and Accessories

	SCO5A	SCO10A
Caster Platform	90000574	90000574
Copper Shelf Package: Includes 3 copper shelves, 6 copper shelf slides	9750582	9750582
Extra Shelf, Copper, Max Weight 35 lb (15.8 kg)	5820504	5820504
Extra Slide, Copper, 2 Required Per Shelf	5820505	5820505
Extra Shelf, Stainless Steel, Max. Weight 35 lb (15.8 kg)	5121525	5121525
Extra Shelf, Reinforced, Max. Weight 50 lb (22.7 kg)	912-975-0004	912-975-0004
Extra Slide, 2 Required Per Shelf	5121526	5121526

Options must be specified when ordering. Contact Sheldon Manufacturing for additional information.

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